

decreasing trend in average CNi dose by year: at the end of the first year, the mean dose of TAC was  $9.3 \pm 5.4$  mg/day and  $282.1 \pm 118.3$  mg/day for CYC, decreasing to  $5.2 \pm 3.6$  and  $158.7 \pm 57.8$  mg/day in the third year, and  $4.8 \pm 7.3$  and  $144.2 \pm 58.4$  mg/day in the fifth year. At the end of the first (n=455) and second year (n=408) post-transplant, the most common IS regimens were TAC/prednisone/mycophenolate mophetil (MMF) (19.1% in both years), TAC/prednisone/azathioprine (15.6% at first year and 14.7% at second year) and CyC/prednisone/azathioprine (13.2% at first year and 14.0% at second year). By the end of the fifth year (n=141), however, the most common IS regimen was TAC/prednisone/mycophenolate sodium (MFS; 31.9%), followed by CyC/prednisone/MFS (7.8%) and TAC/prednisone/MMF (7.1%).

**CONCLUSIONS:** Tacrolimus was the CNi of choice for the majority of *de novo* kidney transplant patients in 2004. The main IS therapy regimens during the first post-transplant years was tacrolimus/prednisone/mycophenolate mophetil.

#### PUK20

##### EARLY DETECTION, SCREENING, AND MANAGEMENT OF CHRONIC KIDNEY DISEASE AMONG ACTIVELY EMPLOYED – AN INTEGRATED POPULATION HEALTH MANAGEMENT APPROACH

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**OBJECTIVES:** The employer burden of CKD in terms of lost productivity, short and long term disability use, and high total health care costs has been well-documented and warrants an employer-sponsored population health management program to improve the health and lives of the workforce. Georgia Power Company (GPC) has implemented a chronic care management program aimed at early identification, disease awareness, and counseling of employees through on-site screenings. **METHODS:** Individuals are offered voluntary participation in the CKD management program with their PCPs and nephrologists depending upon their risk and CKD stage. Health outcomes including, clinical, resource utilization, and self-reported health status and productivity are compared pre- and post- program implementation. **RESULTS:** Preliminary results at the 6-month mark show that: a) 2,589 employees were screened, 638 (25%) met program criteria for participation and 110 (17.2%) agreed to participate in the study; b) among the current enrollees, 17% have diabetes and 51% have hypertension; c) mean eGFR rates are 61.27, and HbA<sub>1c</sub> levels of 7.7, and a mean BMI of 30.5 indicating a population at high risk for developing CKD; d) participants reported missing on average 10.5 hours/week due to their CKD; and e) baseline total health care expenditures were \$19,776 per member per year indicating a high cost population as well. **CONCLUSIONS:** CKD is a high-cost disease for GPC. Resources invested in creating novel CKD management programs to identify, raise awareness, and manage CKD are a worthwhile investment for employers.

#### PUK21

##### PATIENT CHARACTERISTICS ASSOCIATED WITH INITIATION OF OVERACTIVE BLADDER (OAB) DISCUSSION WITH A PHYSICIAN

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**OBJECTIVES:** Many patients with OAB attempt self-management and are reluctant to initiate an OAB discussion with a physician. We sought to identify patient characteristics associated with patient initiation of an OAB discussion with a physician. **METHODS:** Of 24,866 respondents of the 2009 National Health & Wellness Survey, an internet-based questionnaire on healthcare attitudes, behaviors, and outcomes, 2750 recontacted respondents qualified for and completed a longitudinal survey. Eligible subjects ( $\geq 18$  y) had an OAB Awareness Total score of  $>14$  (men) or  $>16$  (women) or used an OAB prescription medication. Exclusion criteria included current pregnancy or catheter use, hematuria, urinary tract infection symptoms, benign prostatic hyperplasia (BPH), use of BPH medication, or prostate cancer. Analysis of proportions and logistic regression analysis (2-tailed  $P < 0.05$  significance level) identified patient characteristics associated with initiation of OAB discussions with a physician. **RESULTS:** 1325 of 2750 (48%) OAB patients reported initiating an OAB discussion with a physician. These respondents (mean age 52 y) were predominantly female (65%) and white (71%). Significant variables associated with initiation of an OAB discussion were divorced/separated/widowed vs single, more familiar with OAB, a longer duration of bladder control symptoms, lower SF-12 Physical Component Summary score, better daily activity function, greater pill burden, and regular physician contact (Table). Patient age, income, employment status, and health insurance coverage were not significantly associated with a patient-physician OAB discussion. **CONCLUSIONS:** Patients are more likely to initiate an OAB discussion with their physician if they have regular contact with the physician, a longer duration of symptoms, are familiar with OAB, and have worse physical quality of life. Socioeconomic variables or drug insurance coverage were not significantly associated. These findings suggest that the physician relationship is important for help seeking behavior; and there is a need for early patient education on OAB symptoms and treatments.

#### Urinary/Kidney Disorders – Research on Methods

#### PUK22

##### LEVELING THE PLAYING FIELD: A CASE STUDY ON TECHNICAL PRECISION IN COMPARATIVE EFFECTIVENESS RESEARCH FOR CLINICALLY LOCALIZED PROSTATE CANCER (PC)

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**OBJECTIVES:** Determine the impact of correcting for different definitions of prostate-specific antigen (PSA) recurrence when analyzing relative effectiveness of seven treatments for localized PC; Emphasize the importance of clinical input and real-world data in ensuring modeling accuracy. **METHODS:** We conducted two lifetime cost-utility analyses comparing men undergoing open, laparoscopic, or robot-assisted radical prostatectomy, 3-dimensional conformal or intensity-modulated radiation therapy, brachytherapy, or combined external-beam radiation and brachytherapy. We constructed a Markov model quantifying lifetime costs and quality-adjusted life years (QALYs) for men with localized PC in low-, intermediate-, and high-risk strata. Post-treatment PSA recurrence is defined differently for surgical versus radiation treatments. In Study 1, we made clinically-based corrections in time between recurrence and metastasis, the basis for time-to-disease-progression (biochemical failure [BCF]) calculations, to account for the different definitions. In Study 2, these corrections were not made. **RESULTS:** In “corrected” analyses, surgery tended to yield more QALYs and lower costs than radiation, with minimal differences among surgical modalities. Compared to a base case assuming a 4-year increment between the surgery and radiation modalities in the median time from BCF to metastasis, “uncorrected” analyses yield surgical costs relatively overstated by 3 to 11%; QALYs understated by 1 to 11%; life expectancy understated by  $<1\%$  to 8.5%; metastasis overstated by 17 to 36%; and PC death overstated by 17% to 43%. Results are generally greater with larger corrections and outcomes discounted to net present value. **CONCLUSIONS:** “Without correction” results do not affect conclusions about relative costs for all patients or QALYs for low-risk patients. They do affect QALY conclusions for intermediate- and higher-risk patients, yielding erroneous conclusions on the relative superiority of radiation versus surgical treatments. Without correction, the same incorrect conclusions would be reached for survival, metastasis, and PC death. Literature and real-world data were used to validate the corrections.

#### PUK23

##### METHODOLOGICAL CONSIDERATIONS FOR COST-EFFECTIVENESS ANALYSIS OF ONABOTULINUMTOXIN IN PATIENTS WITH NEUROGENIC DETRUSOR OVERACTIVITY

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**OBJECTIVES:** Selection of an appropriate modeling structure is a key consideration in economic evaluations. Factors that influence the choice of modeling structure include data availability and consensus within the clinical community regarding clinically meaningful definitions of treatment response and defined and measurable health states. In the absence of an agreed consensus, selecting a model structure is challenging. We explored two model structures to assess the cost-effectiveness of onabotulinumtoxinA for the treatment of urinary incontinence (UI) due to neurogenic detrusor overactivity (NDO). **METHODS:** The merits and limitations of a model based on treatment response versus an absolute model structure were considered. In the response model, health states were defined by precise trial outcomes (percent reduction in UI episodes from baseline). In the absolute model, health states were defined by categories of UI episodes/week. In the absence of clinically meaningful cutoffs, we plotted health-related quality of life (HRQoL) scores versus UI episodes to derive meaningful cutoffs for health states based on HRQoL. **RESULTS:** In the response model, response was defined as a  $\geq 50\%$  reduction in UI episodes. The primary limitation with this approach is the heterogeneity within ‘non-responder’ patients (e.g. patients with either a 0% or a 49% reduction are both ‘non-responders’). No clear health state cutoffs were observed with respect to HRQoL and UI episodes for the absolute model. Health states were defined on percentile distribution within the trial population: dry, 0-25% [1-14 UI episodes/week],  $>25\%$ -75% [15-32 UI episodes/week], and  $>75\%$  [ $>32$  UI episodes/week]. The primary limitations to this approach are the inability to capture health improvement within health states and the lack of clinical relevance for health states based on percentiles. **CONCLUSIONS:** In the absence of clinical consensus, model structure selection should be a key consideration to capture the true economic value of a therapy.

#### PUK24

##### USE OF BIOMARKERS IN PROPENSITY SCORE MATCHING TO MITIGATE CHANNELING BIAS IN A RETROSPECTIVE COHORT OF ESRD PATIENTS

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**OBJECTIVES:** Retrospective analyses are inherently subject to bias. Techniques such as propensity score matching (PSM) can function as pseudo-randomization. The PSM, however, is often done solely using administrative claims data. We tested the hypothesis that claims alone would provide inadequate matching when compared to claims plus relevant biomarkers. **METHODS:** We used databases from a large dialysis organization to obtain two cohorts of dialysis patients prescribed different drug therapies within the same class. The cohorts were first matched on demographics and comorbidities only. The same cohorts were then rematched, adding baseline biomarkers (albumin, corrected calcium, Kt/V, normalized protein catabolic rate (nPCR), parathyroid hormone (PTH), phosphorus) to the PSM. We used generalized mixed models (GMM) to determine if treatment was associated with lab outcomes over a 16-week period, run separately on both PSM cohorts. **RESULTS:** The first PSM cohorts did not differ on baseline demographic and comorbid variables, but significant differences existed in four (nPCR, phosphorus, calcium, PTH) of the six baseline biomarkers excluded from the match (all  $p < 0.01$ ). When biomarkers were included in the PSM, there were no significant differences between groups on any baseline measures. GMM analysis showed a significant